

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

In the paragraph [0023]:

[0023]

Effect of DTT treatment in reaction between protein other than methioninase and MEGC-50HS

(1) Using papain (manufactured by Wako Pure Chemical Industries, Ltd.) (e.g., SEQ ID NO: 2), a PEG conjugation reaction and DTT treatment were similarly performed, and specific activities thereof were compared. For assessing activity of papain, a reaction was performed in a 50 mM Tris hydrochloride buffer (pH 7.5) containing 0.1 mM L-cysteine, 2 mM EDTA • 2 Na, and 1 mM N-a-benzoyl-DL-arginine-p-nitroanilide hydrochloride, and an amount of p-nitroaniline produced at 37°C for 1 minute was monitored and measured at 410 nm. As a result, as shown in Table 4, it was found out that specific activity is considerably decreased by PEG conjugation, but the activity is recovered by performing DTT treatment.

[Table 4]

Effect of DTT treatment on specific activity of PEG conjugated papain

	Relative specific activity (%)
Papain	100
Reaction mixture of PEG conjugation	42
DTT treatment	106

(2) Actinomyces, Streptomyces sp. was cultivated with shaking at 30°C for 3 days using a medium (pH 7.0) consisting of 2.0 % polypeptone, 2.0 % soluble starch, 0.2 % dipotassium hydrogen phosphate, 0.1 % magnesium sulfate, and 0.1 % yeast extract. Bacterial cells were

removed by centrifugation, this was dialyzed with a 25 mM sodium borate buffer (pH 8.5) to obtain a crude enzyme solution of transglutaminase (TGase, (e.g., SEQ ID NO: 3). Four mg of MEGC-50HS was added to 0.25 mL of this crude enzyme solution to react materials at 25°C for 1 hour. DTT treatment was performed at 0.1 % of a final concentration of the reaction solution, and specific activity was compared. TGase activity was measured according to the method of Folk J. E. and Chung S. I. (Methods Enzymol. 113, 358-375, (1985)). As a result, as shown in Table 5, specific activity of TGase was reduced to 36 % by PEG conjugation, but recovered to 70 % by performing DTT treatment.

[Table 5]

Effect of DTT treatment on specific activity of PEG conjugated transglutaminase

	Relative specific activity (%)
TGase	100
Reaction mixture of PEG conjugation	36
DTT treatment	70

From the forgoing, it can be said that the effect due to DTT treatment is not limited to rMETase, but can be also applied to other enzymes.